

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION See paragraph 2 below

International application No
PCT/IL2004/001096

International filing date (day/month/year)
01.12.2004

Priority date (day/month/year)
03.12.2003

International Patent Classification (IPC) or both national classification and IPC
F16S3/00, B29C45/14, B29C70/70, B29C70/26

Applicant

KETER PLASTIC LTD.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis 1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2 FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220

3 For further details, see notes to Form PCT/ISA/220

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY~~APPENDIX A~~ 18 MAY 2006**Box No. I Basis of the opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item
 - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23 1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material:
 - in written format
 - in computer readable form
 - c. time of filing/furnishing:
 - contained in the international application as filed.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IL2004/001096

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1 Statement

Novelty (N)	Yes:	Claims	4-12, 14-16, 18-30
	No:	Claims	1-3, 13, 17
Inventive step (IS)	Yes:	Claims	24-30
	No:	Claims	4-12, 14-16, 18-23
Industrial applicability (IA)	Yes:	Claims	1-30
	No:	Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the International application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IL2004/001096

Re Item V

AP20 Rec'd PCT/PTO 18 MAY 2006

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Reference is made to the following documents:

- D1: US-A-4 053 126 (DURET ET AL) 11 October 1977 (1977-10-11)
- D2: US-A-5 846 463 (KEENEY ET AL) 8 December 1998 (1998-12-08)
- D3: GB-A-2 370 803 (MAIER S COOP) 10 July 2002 (2002-07-10)
- D4: FR-A-2 265 527 (IMPERIAL CHEMICAL INDUSTRIES LTD,GB; IMPERIAL CHEMICAL INDUSTRIES LTD) 24 October 1975 (1975-10-24)
- D5: PATENT ABSTRACTS OF JAPAN vol. 012, no. 392 (M-755), 19 October 1988 (1988-10-19) & JP 63 141713 A (NIPPON RADIATOR CO LTD), 14 June 1988 (1988-06-14)

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses a composite article comprising a metal reinforcing element 23 and a molded plastic coating 34 firmly attached thereto (see fig. 8), wherein said reinforcing element is formed to define an open channel (see col. 3, l. 55-58 and fig. 8) having a longitudinal axis and an open side parallel to said axis, and said plastic coating includes a portion formed as a wall mechanically closing said open side of the channel (see col. 3, l. 55-68).

Therefore, **document D1 discloses all the features of claim 1.**

3. Dependent claims 2-23 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step, the reasons being as follows:

- 3.1 Document D1 discloses further the features of claims 2, 3, 13 and 17 (see passages cited in the search report).**
- 3.2 The features of claims 6 and 7 are known from document D3 and the features of claim 8 are known from document D2.**

The features of claims 18-23 are normal constructional features for the skilled person. In combination the additional features of claims 4,5, 9-12, 14-16 are not known from the prior art. However at present the requirements of Article 33(3) PCT have formally not been met.

- 4.1 The document D4 is regarded as being the closest prior art to the subject-matter of claim 24 and discloses (the references in parentheses applying to this document): a method of manufacturing a composite article comprising a metal reinforcing element (see p. 8, l. 21-22), wherein said metal reinforcing element has an "U" shape, the method including (see p. 10, l. 17 to p. 11, l. 9, fig. 6 and 7):
- providing said metal reinforcing element;
 - providing a mold comprising at least two parts formed to define a mold cavity there between when the mold is assembled, said mold being adapted to accommodate said metal reinforcing element fixedly in said cavity, allowing space for said plastic coating;
 - assembling said mold parts and said metal reinforcing element so as to fix said reinforcing element in the cavity of said mold;
 - injecting flowable and settable plastic coating into said space to form said composite article;
 - releasing the obtained article including the reinforcing element and the set plastic coating by disassembling said mold.
- 4.2 The subject-matter of claim 24 therefore differs from this known D4 in that a mold core snugly fitting the reinforcing element is inserted in said reinforcing element before the flowable and settable plastic is injected in the mold cavity, so that the final plastic coating includes a portion formed as a wall mechanically closing the open side of the reinforcing element.
Consequently, **the subject-matter of claim 24 is new** (Article 33(2) PCT).
- 4.3 The problem to be solved by the present invention may therefore be regarded as the pressure applied on the reinforcing profile during injection molding and consequently the risk of leakage of the liquid plastic toward the internal surface profile.
The solution, i. e. the use of a mold core is known for the injection molding of hollow profiles, see document D5 for instance.

Nevertheless, there is no indication in D4 to form a closed plastic coating around the opened metallic insert, and there is no indication in D5 to use a mold core while molding a plastic coating around an insert.

Therefore, the subject-matter of claim 24 is considered to be inventive (Article 33(3) PCT).

5. Claims 25-30 are dependent on claim 24 and as such also meet the requirements of the PCT with respect to novelty and inventive step.
6. The subject-matter of claims 1-30 is considered as susceptible of industrial application (Article 33(4) PCT).

Re Item VII

Certain defects in the international application

- 1.1 Independent claims 1 and 24 are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art being placed in the preamble (Rule 6.3(b)(I) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 1.2 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D2 and D4 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII

Certain observations on the international application

The application does not meet the requirements of Article 6 PCT, because claim 1 is not clear: the term "*firmly*" used in claim 1 is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers, thereby rendering the definition of the

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International application No.

PCT/IL2004/001096

subject-matter of said claim unclear, Article 6 PCT.

The present objection could be obviated by incorporating the features of dependent claim 6 in independent claim 1.